

REMARKS

Claims 1-16, inclusive, have been canceled and claims 17-19, inclusive, have been added.

Applicants invention broadly relates to surveillance systems that record point-of-sale (POS) transaction events for review at a later time. Typically, these surveillance systems employ video cameras to monitor and record transactions at a number of cashier lanes such as those found in supermarkets, retail stores, and toll collection locations. The digital transaction data from a cash register, bar code reader, or other registering device related to a particular video image is simultaneously fed into a video character generator to provide a composite video picture in which an alphanumeric display of the transaction data overlays the video image of the transaction.

In Miller, U.S. Patent 4,641,203, a system is described wherein a conventional video cassette tape cartridge and a floppy diskette jacket or label are manually encoded with the same identifiers. The encoded diskette is loaded into a computer and the identifier is entered on the diskette from a keyboard. In operation, a still scene or document is presented page-by-page to a video camera for recording on a video cassette with the user simultaneously typing notes pertinent to the document or scene on the diskette through the computer keyboard. Data, text, or remarks relevant to the video can also be added at a later time by manual keyboard entries on the diskette. All data and text recording depend on the user to type in notes and explanations that accurately portray the content of the video. Video and data or text are stored on separate media. To retrieve correlated video and data, a manual search is needed to locate video and text with the

same identifiers. To playback recorded video and text, two separate displays/monitors are required since the diskette data cannot be combined with or superimposed on the video image. There is no means by which video and text can be legally, validly correlated since data is manually entered and is therefore subject to interpretation by the user, human error, and intentional manipulation. Further notes and explanations which accurately portray the content of the video can be altered through the computer. Moreover, even if the diskette is locked for "read only", one can discard the original diskette and retype different notes and explanations on another diskette entering the same identifiers as the discarded diskette.

Miller does not disclose a means of applying coded identifiers electronically from a common source inherent to the system, retrieving correlated video and transaction data automatically from different recording media, or means of combining the video image of a particular transaction overlaid with transaction data/text correlated to the video to generate an unobscured composite video. Miller does not disclose a method or system for validity and legally verifying the authenticity of the transaction text or data.

Clever, U.S. Patent 4,145,715, discloses a surveillance system for point-of-sale transactions comprising a video camera, a digital device such as a cash register, storage media, monitors, and generating a composite video of the transactions. The video signals and the digital signals are combined and recorded together (simultaneously) to produce a composite video image wherein the digital data is permanently overlaid on the video images in a predetermined, fixed position. It has been found that as a result, the digital overlay can in some instances degrade the

clarity of the result video images. In instances, for example, where the transaction data obscures important video images necessary to evaluate a given event. For example, in a supermarket check-out lane, if it is desired to compare the digital data for a given transaction to the video image of the items purchased, if the digital data overlays the video image in such a way to obscure some of the items, then the verification process cannot be performed accurately (the auditing process cannot be performed accurately). The video image generated contains alphanumeric transaction data permanently overlaid on the video image because the composite video frame is generated before recording on video tape. Clever suggests blanking out a portion of the video image and underlying the digital data to facilitate easier reading of the digital data. However, the blanked-out portion of the video image may be necessary for proper auditing evaluation. Therefore, this does not solve the problem of auditing which requires accurate comparison of the video image and the transaction data as described above.

Further, Clever does not have means for verifying the authenticity of the digital transaction data. There is no disclosure in Clever of a verification means such as the check sum of Katz to prevent manipulation of the digital transaction data without detection.

In many instances, the overlay degrades the clarity of the resultant video images. Alternatively, a portion of the video may be blacked out so that the transaction data can be more easily read when viewed at a later time on a monitor. In this case, the blacked out portion is recorded over a portion of the image being recorded by the television camera and is lost forever.

Clever does not record video images and digital transaction data asynchronously on separate storage media nor are the identifiers used to retrieve correlated data since the video and transaction data are synchronously recorded. Moreover, on playback, Clever does not have the capability to selectively place transaction data on the video image so as to not obscure or black-out some portions of the video image. Clever does not teach a verifiable means of authenticating the transaction data with its corresponding video image.

Odle, U.S. Patent 5,491,511, is not an effective reference by reason of the filings in the parent application showing completion of the Katz invention prior to the filing of the Odle application. Odle clearly does not disclose a system as now set forth in the claims presented herewith. For example, Odle discloses an audit system for a video surveillance network that stores a digital record of a transaction registered by an electronic device in a standard predefined database format and a separate mixed composite video containing both a visual record and a digital record of each transaction. The separately stored digital record and mixed composite video signal are correlated through the use of a system pointer. In any situation that may be flagged as of interest in an audit, the operator may view the correlated digital record that is obscured in the mixed composite video signal.

Odle does not teach separate storage of the digital record of each physical transaction registered by an electronic device and the related video image signal. Odle, separately stores a mixed composite video signal and the corresponding digital transaction data. The system pointer described by Odle is for the purpose of bringing together the mixed composite video signal (which

contains the digital transaction data and the visual image) and the corresponding digital transaction data which may be obscured on the mixed composite video. Odel does not teach verifiable means of authenticating the digital transaction data and its corresponding visual record since both records can be manipulated with detection.

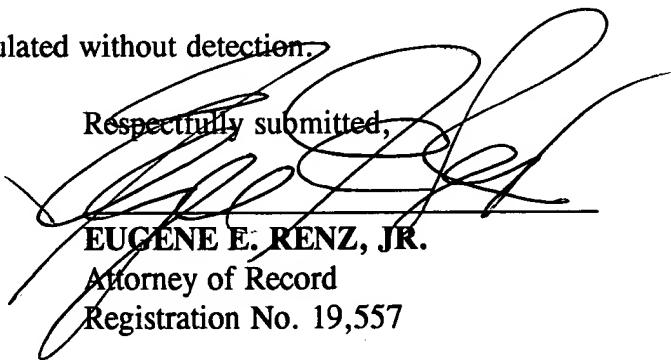
Katz discloses a surveillance system with new and unique features that differ from prior art. Katz describes a system that provides a composite video comprising transaction data selectively placed on the correlated video image so as not to obscure the video image and a positive method of verifying the authenticity of the transaction data and its correlated video image. These features are not disclosed in prior art systems. To achieve these features, the transaction data and the corresponding video image are simultaneously coded with the same identification sequence from a common, electronic source inherent to the system and then recorded asynchronously in data bases on separate storage media. This feature also allows transaction data to be buffered at the point-of-sale and transmitted to the recording media at a later time. Through the computer, the operator instructs each data base to retrieve transaction data and video images with the same identification sequence. The transaction data is then selectively positioned on the video image generating an unobscured composite video. Through a check sum method, the authenticity of the transaction data and its correlated video image is validated.

The Katz application contains the following disclosures:

1. Digital transaction data is not recorded on the video cassette.
 2. Digital transaction data is separately and asynchronously recorded from that of the video images.
 3. Digital transaction data and the video image of the behavioral event are simultaneously marked with the same identifying coded sequence.
 4. Coded identifiers are applied electronically from a common source inherent to the system.
 5. The coded identifiers are used to retrieve correlated transaction data and video images.
 6. On playback, a composite video is generated by selectively overlaying the transaction data on the video image.
 7. The transaction data is overlaid on the video image so as not to obscure any portion of the video image.
 8. encrypted check sum method is used to verify authenticity of the transaction data.
- transaction data cannot be changed or manipulated without detection.

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